Calamity Stream Restoration & Trout Population Surveys
Burns Ranger District
Malheur National Forest
USDA Forest Service, Pacific Northwest Region

Objective/Purpose of Project: The primary objective of the Calamity Restoration Project was to protect and restore approximately 65 acres of riparian habitat in three creeks for redband trout and establish baseline fish population data for streams in the Silvies Sub-basin. Livestock grazing, past timber harvest practices, and road construction have contributed to degraded stream conditions. Without resting the riparian area from livestock grazing, continued stream bank destabilization will occur on Calamity, McBride, and Beaverdam Creeks. Hoof shearing from livestock causes direct sediment delivery, widening of stream channels, and filling of critical pool habitat for trout (See attached photo's). The two creeks lacked woody stems such as willows and alders, which stabilize stream banks and provide shade and cover for trout. During hunting seasons off road vehicle use was common in the area and caused rutting near Beaverdam Creek. Designated closed roads through riparian areas were traveled primarily during hunting seasons. Breaching of inadequate road closures and berm roads are common in the area.

Methods or Techniques Used: Approximately one mile of 4-strand barbed wire fence was constructed for protection of 25 acres of riparian habitat and approximately 40 acres of wet meadow. The fence was constructed by an inmate crew from MacLaren. Willow cut tings were collected from Beaverdam and Calamity creek from established willow plants. The cuttings were planted along the creeks with the help from YCC (Youth Conservation Corp.). Approximately 1.25 mile of stream was planted. As a result of decades of fire suppression western juniper has increased on the floodplain of Beaverdam and Calamity creeks. Juniper was felled by forest service fire personnel and placed in the floodplain of Beaverdam Creek with an ATV and work crews. Juniper was used as rip-rap on exposed cut banks along the creek and used to form a brush fence around willows for protection of willow cuttings from big game. Several fish population surveys were conducted on Beaverdam and Calamity creeks to monitor fish populations during the restoration process. A total of 50 miles of fisheries habitat was inventoried for fish populations and distribution. A backhoe was used to place boulders and logs for road closures.

Realized/Expected results: With deferred grazing within the Calamity and Beaverdam Creek riparian pasture, stream bank stabilization will occur over time. The stream banks

would be further improved once willows become established. In the future, it is probable stream temperatures could be reduced from shading and juniper removal. Juniper trees utilize a significant amount of ground water.

Contact Person and telephone number: Roy Sutcliffe, Wildlife Technician, (541) 573-4382 or Rick Vetter, Fisheries Biologist @ 573-4369

Agreement Type(s): Challenge Cost Share

Primary Partner List: MacLaren , Youth Conservation Corps , Oregon Dept. of Fish and Wildlife , Burns Pauite Tribe , Central Oregon Flyfishers

Project Data:

Category	# Miles Stream Restore	# Acres Lake Restore	# Miles Inven.	# Acres Inven.	# Monitor Plans	# Admin Studies	P&M Program Mgmt. Plan $$	P&M Overhead $$	P&M Total Ouput $$	Total FS + Partner $$	Other Res. $$	Partner $$	Total FS $$	In-kind $$
Totals	3	0	50	0	0	0	1,200	3,000	20,000	48,200	9,000	0	24,200	24,000
Inland Coldwater	3	0	50	0	0	0	1,200	3,000	20,000	48,200	9,000	0	24,200	24,000

This project also benefited: NatureWatch , TES , Wildlife

Description of benefits to other program(s): About 275 acres of timber, sagebrush, wet/dry meadows and riparian areas were restored by the construction of a fence that now excludes livestock. This may be the first location on the district and possibly the forest that could provide future nesting sites for greater sandhill cranes.